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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of : S. Banerjee  
Serial No. : 10/625,804  
Filed : July 23, 2003  
Entitled : METHODS FOR DETECTING  
DEANTIGENIZED T CELL  
EPITOPES AND USES THEREOF

ART UNIT: Not yet assigned

EXAMINER: Not yet assigned

Attorney Docket No. BBC-156

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING**

The undersigned hereby certifies that this correspondence is being deposited with the U.S. Postal Service as First Class Mail, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

October 13, 2004  
date of mailing and signature

Lisa Rasmussen  
Lisa Rasmussen

**TRANSMITTAL LETTER**

Sir/Madam:

Transmitted herewith are: ☒ An Information Disclosure Statement under 37 CFR §§ 1.56, 1.97 and 1.98; ☒ Form PTO-1449 Information Disclosure Statement; ☒ A photocopy of each reference cited; and ☒ An Acknowledgement Postcard; to be filed in the above-identified patent application.

**FEE FOR ADDITIONAL CLAIMS**

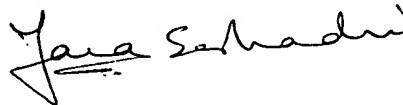
- ☒ A fee for additional claims is not required.  
☐ A fee for additional claims is required. The additional fee has been calculated as shown below:

	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	NUMBER OF EXCESS CLAIMS	RATE	FEES DUE
TOTAL CLAIMS		20	0	× \$18	= 0.00
INDEPENDENT		1	0	× \$84	= 0.00
FIRST INTRODUCTION OF MULT. DEPENDENT CLAIM				+\$280	= 0.00
TOTAL FEES DUE					= 00.00

PETITION FOR EXTENSION OF TIME

- [ ] Extension is requested under 37 CFR 1.136(a), and the following extension fee is applicable for the paper(s) filed herewith: [ ] \$110.00 for response within first month pursuant to 37 CFR 1.17(a)(1);  
[ ] \$420.00 for response within second month pursuant to 37 CFR 1.17(a)(2);  
[ ] \$950.00 for response within third month pursuant to 37 CFR 1.17(a)(3);  
[ ] \$1,480.00 for response within fourth month pursuant to 37 CFR 1.17(a)(4).  
[ ] \$2,010.00 for response within fifth month pursuant to 37 CFR 1.17(a)(5).
- [X] The Commissioner is hereby authorized to charge payment of any additional fees required in connection with the paper(s) transmitted herewith, or to credit any overpayment of same, to **Deposit Account No. 010025**. A duplicate copy of this transmittal letter is transmitted herewith.

Respectfully submitted,



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October 13, 2004  
Date

Lisa Rasmussen  
Lisa Rasmussen

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §§ 1.56, 1.97 AND 1.98**

Sir/Madam:

In accordance with the duty of disclosure under 37 CFR § 1.56, Applicants submit this Information Disclosure Statement pursuant to 37 CFR §§ 1.97 and 1.98 for the above-identified application. Applicants makes the following publications of record in the above-identified application.

US PATENT DOCUMENTS

Kubo et al., 2000, US PAT. NO. 6,037,135.

Vitiello et al., 2001. US PAT. NO. 6,322,789

FOREIGN DOCUMENTS

Adair et al., 1991, WO 91/09967.

Carr, 1998, WO 98/52976.

Carr et al., 2000, WO 00/34317.

Estell and Harding, 1999, WO 99/53038.

Fothergill et al., 1998, WO 98/59244.

Kaymakalan et al., 2000, WO 00/56772.

Queen, 1989, WO 89/09622.

Warmerdam et al., 2001, WO 01/40281.

Law et al., 1991, EP 0438310.

Winter, 1989, EP 0239400.

OTHER REFERENCES

Altuvia et al., 1995, J. Mol. Biol. 249:244-250.

Buus et al., 1987, Science 235:1352.

De Bruijn et al., 1991, Eur. J. Immunol. 21:2963-2970.

Delhaise et al., 1984, J Mol Graphics 2:103-106.

Devereux et al. 1984, NAR 12(1):387-395.

Horton et al., 1989, Gene 77:61-68.

Falk et al., 1991, Nature 351:290.

Gausepohl et al., 1990, In: Proc. 11th American Peptide Symposium. (Rivier & Marshall, Ed.) ESCOM, Leiden. pp 1003-1004.

Hiemstra et al. 1997, PNAS USA 94(19):10313-10318.

Hunkapiller et al., 1983, Methods Enzymol. 91:399.

Hunt et al., 1992, Science 225:1261.

Kaufman and Sharp, 1982. Mol. Biol. 159:601-621.

Pamer et al., 1991, Nature 353:852-955.

Ritter et al., 2001, Cancer Res. 61(18):6851-6859.

Schaeffer et al., 1989, PNAS USA 86:4649.

Sette et al., 1989, PNAS USA 86:3296.

Sette et al., 1991, In: Seminars in Immunology, V.3 (Geftter, ed) W. B. Saunders, Philadelphia, pp 195-202.

Stickler et al., 2000. J. Immunotherapy 23(6):654-660.

Taneja and David, 1998. J Clin Invest. 101(5):921-926.

Urlaub and Chasin, 1980. PNAS USA 77:4216-4220.

Form PTO-1449 listing each of these documents and photocopies of each document are enclosed herewith for the Examiner's convenience.

Applicants certify that the following items contained in this Information Disclosure Statement was first cited in a communication, International Search Report, received from a foreign Patent office, the Patent Cooperation Treaty:

Carr, 1998, WO 98/52976;

Carr et al., 2000, WO 00/34317; and

Warmerdam et al., 2001, WO 01/40281.

This paper is being mailed before the mailing of a first office action on the merits in the above-identified application filed under 35 U.S.C §111 and 37 CFR §1.53(b). Pursuant to 37 CFR §1.97(b)(3), no fee is required with this submission.

Applicant does not intend to represent that any of the documents submitted herein is material prior art to this invention or that the list represents an exhaustive search of documents related to this invention.

Applicant respectfully requests that the documents submitted herein be considered and made of record in this application.

Respectfully submitted,



Tara Seshadri, Ph.D.

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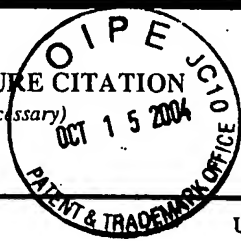
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# INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)



Docket Number (Optional)

BBC-156

Application Number

10/625,804

Applicant(s)

S. Banerjee

Filing Date

July 23, 2003

Group Art Unit

Not yet assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		6,037,135	3/14/00	Kubo et al.			
		6,322,789	11/27/01	Vitiello et al.			

## FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
		91/09967	7/11/91	WO				
		98/52976	11/26/98	WO				
		00/34317	6/15/00	WO				
		99/53038	10/21/99	WO				
		98/59244	12/30/98	WO				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Taneja and David, "HLA Transgenic Mice as Humanized Mouse Models of Diseases and Immunity", (1998), J Clin Invest. 101(5):921-926.
		Urlaub and Chasin, "Isolation of Chinese Hamster Cell Mutants Deficient in Dihydrofolate Reductase Activity", (1980), PNAS USA 77:4216-4220.

EXAMINER

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**BBC-156**

**10/625.804**

**S. Banerjee**

**July 23, 2003**

**Not yet assigned**

[illegible]

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
		00/56772	09/28/00	WO				
		89/09622	10/19/89	WO				
		01/40281	06/07/01	WO				
		0239400	03/26/87	EP				
		0438310	01/17/91	EP				

	Stickler et al., "CD4+ T-cell Epitope Determination Using Unexposed Human Donor Peripheral Blood Mononuclear Cells", (2000), J. Immunotherapy 23(6):654-660.
	Sette et al., "Prediction of Major Histocompatibility Complex Binding Regions of Protein Antigens by Sequence Pattern Analysis", (1991), In: Seminars in Immunology, V.3 (Geffer, ed) W. B. Saunders, Philadelphia, pp 195-202.

DATE CONSIDERED

SHEET 2 OF 4

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Altuvia et al., "Ranking Potential Binding Peptides to MHC Molecules by a Computational Threading Approach", (1995), J. Mol. Biol. 249:244-250.

Buus et al., "The Relation Between Major Histocompatibility Complex (MHC) Restriction and the Capacity of Ia to Bind Immunogenic peptides", (1987), Science 235:1352.

De Bruijn et al., "Peptide Loading of Empty Major Histocompatibility Complex Molecules on RMA-S Cells Allows the Induction of Primary Cytotoxic T Lymphocyte Responses", (1991), Eur. J. Immunol. 21:2963-2970.

Delhaise et al., "Interactive Computer Animation of Macromolecules", (1984), J Mol Graphics 2:103-106.

Devereux et al., "A Comprehensive Set of Sequence Analysis Programs for the VAX", (1984), NAR 12(1):387-395.

Horton et al., "Allele-specific Motifs Revealed by Sequencing of Self-peptides Eluted from MHC Molecules", (1989), Gene 77:61-68.

Falk et al., "Automated Multiple Peptide Synthesis with BOP Activation", (1991), Nature 351:290.

Gausepohl et al., "The Identification of CD4+ T cell Epitopes with Dedicated Synthetic Peptide Libraries", (1990), In: Proc. 11th American Peptide Symposium. (Rivier & Marshall, Ed.) ESCOM, Leiden, pp 1003-1004.

Hiemstra et al., "Engineering Hybrid Genes Without the Use of Restriction Enzymes: Gene Splicing by Overlap Extension", (1997), PNAS USA 94(19):10313-10318.

Hunkapiller et al., "High-Sensitivity Sequencing with a Gas-Phase Sequenator", (1983), Methods Enzymol. 91:399.

Hunt et al., "Characterization of Peptides Bound to the Class I MHC Molecule HLA-A2.1 by Mass Spectrometry", (1992), Science 225:1261.

Kaufman and Sharp, "Amplification and Expression of Sequences Cotransfected with a Modular Dihydrofolate Reductase Complementary DNA Gene", (1982), Mol. Biol. 159:601-621.

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INITIAL**OTHER DOCUMENTS** *(Including Author, Title, Date, Pertinent Pages, Etc.)*Pamer et al., "Precise Prediction of a Dominant Class I MHC-restricted Epitope of *Listeria Monocytogenes*", (1991), Nature 353:852-955.

Ritter et al., "Serological Analysis of Human Anti-Human Antibody Responses in Colon Cancer Patients Treated with Repeated Doses of Humanized Monoclonal Antibody A33", (2001), Cancer Res. 61(18):6851-6859.

Schaeffer et al., "Relative Contribution of "determinant selection" and "holes in the T-cell repertoire" to T-cell Responses", (1989), PNAS USA 86:4649.

Sette et al., "MHC-antigen-T cell Interactions: an Overview", (1989), PNAS USA 86:3296.

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